Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented): A process for the manufacture of a $LiMPO_4$ powder, comprising the steps of:

providing an equimolar aqueous solution of Li^{1+}, M^{n+}, and PO_4^{3-} prepared by dissolving components which are susceptible to coexist as solutes in an aqueous system and which, upon heating at a temperature below 500° C, decompose to form a pure homogeneous Li and M phosphate precursor;

evaporating water from the solution, thereby producing a solid mixture;

decomposing the solid mixture at a temperature below 500° C to form a pure homogeneous Li and M phosphate precursor; and

annealing the precursor at a temperature of less than 800° C in an inert or reducing atmosphere, thereby forming a $LiMPO_4$ powder of olivine structure;

wherein M^{n+} is one or more of Fe^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, and Mn^{2+}, and M is $Fe_xCo_yNi_zMn_w$,with $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $0 \leq w \leq 1$, and $x + y + z + w = 1$.

Claim 2 (Original): The process according to claim 1, wherein in the step of annealing the precursor, the annealing temperature is less than 600° C.

Claim 3 (Previously Presented): A process for the manufacture of a $LiFePO_4$ powder, comprising the steps of:

providing an equimolar aqueous solution of Li^{1+}, Fe^{3+}, and PO_4^{3-} prepared by dissolving components which are susceptible to coexist as solutes in an aqueous system and which, upon heating at a temperature below 500° C, decompose to form a pure homogeneous Li and Fe phosphate precursor;

evaporating water from the solution, thereby producing a solid mixture;

decomposing the solid mixture at a temperature below 500° C to form a pure homogeneous Li and Fe phosphate precursor; and

annealing the precursor at a temperature of less than 800° C in a reducing atmosphere, thereby forming a $LiFePO_4$ powder of olivine structure.

Claim 4 (Original): The process according to claim 3, wherein in the step of annealing the precursor, the annealing temperature is less than 600° C.

Claim 5 (Previously Presented): The process according to claim 3, wherein the Fe^{3+} bearing component is iron nitrate.

Claims 6 - 7 (Cancelled)

Claim 8 (Previously Presented): A powder for use in lithium insertion electrodes prepared by a process comprising the steps of:

providing an equimolar aqueous solution of Li^{1+}, M^{n+}, and PO_4^{3-} prepared by dissolving components which are susceptible to coexist as solutes in an aqueous system and which, upon heating at a temperature below 500° C, decompose to form a pure homogeneous Li and M phosphate precursor;

evaporating water from the solution, thereby producing a solid mixture;

decomposing the solid mixture at a temperature below 500° C to form a pure homogeneous Li and M phosphate precursor; and

annealing the precursor at a temperature of less than 600° C in an inert or reducing atmosphere, thereby forming a $LiMPO_4$ powder of olivine structure and having an average particle size of less than 1 μm;

wherein M^{n+} is one or more of Fe^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, and Mn^{2+}, and M is $Fe_xCo_yNi_zMn_w$, with $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $0 \leq w \leq 1$, and $x + y + z + w = 1$.

Claim 9 (Original): The powder according to claim 8, wherein M^{n+} is Fe^{3+}, M is Fe and the annealing occurs in a reducing atmosphere.

Claim 10 (Previously Presented): A battery comprising a lithium insertion electrode including a powder prepared by a process comprising the steps of:

providing an equimolar aqueous solution of Li^{1+}, M^{n+} and PO_4^{3-} prepared by dissolving components which are susceptible to coexist as solutes in an aqueous system and which, upon heating at a temperature below 500° C, decompose to form a pure homogeneous Li and M phosphate precursor;

evaporating water from the solution, thereby producing a solid mixture;

decomposing the solid mixture at a temperature below 500° C to form a pure homogeneous Li and M phosphate precursor; and

annealing the precursor at a temperature of less than 600° C in an inert or reducing atmosphere, thereby forming a $LiMPO_4$ powder of olivine structure and having an average particle size of less than 1 μm;

wherein M^{n+} is one or more of Fe^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, and Mn^{2+}, and M is $Fe_xCo_yNi_zMn_w$, with $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $0 \leq w \leq 1$, and $x + y + z + w = 1$.

Claim 11 (Previously Presented): The battery according to claim 10, wherein $x + z + w > 0$.

Claim 12 (Original): The battery according to claim 11, wherein M is Fe, the powder having a reversible electrode capacity of at least 65% of a theoretical capacity when used as an active component in a cathode that is cycled between 2.70 and 4.15 V vs. Li^+/Li at a discharge rate of C/5 at 25° C.

Claim 13 (Original): The battery according to claim 10, wherein M^{n+} is Fe^{3+}, M is Fe, and the annealing occurs in a reducing atmosphere.

Claims 14-17 (Cancelled)